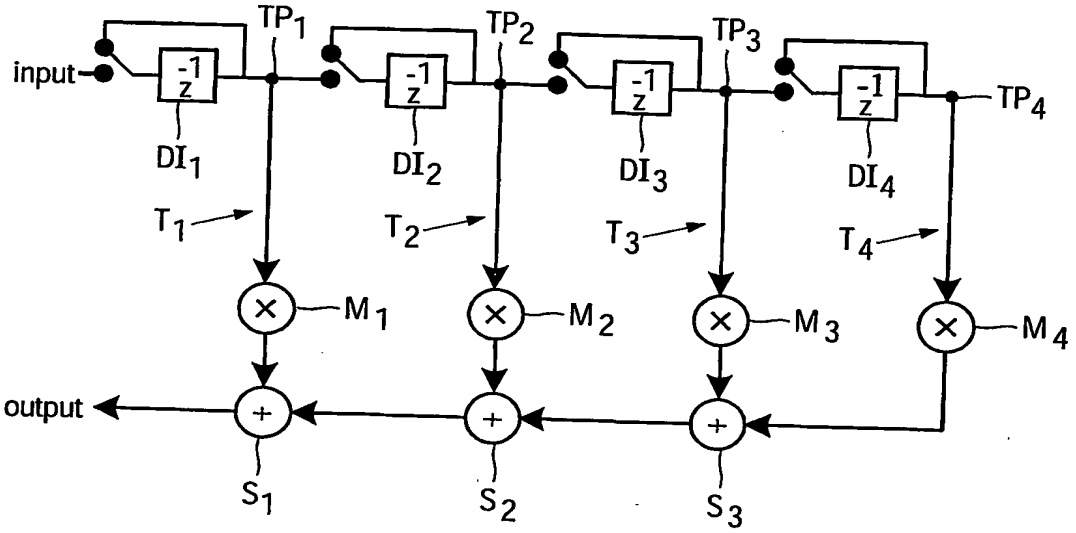

FIG.1

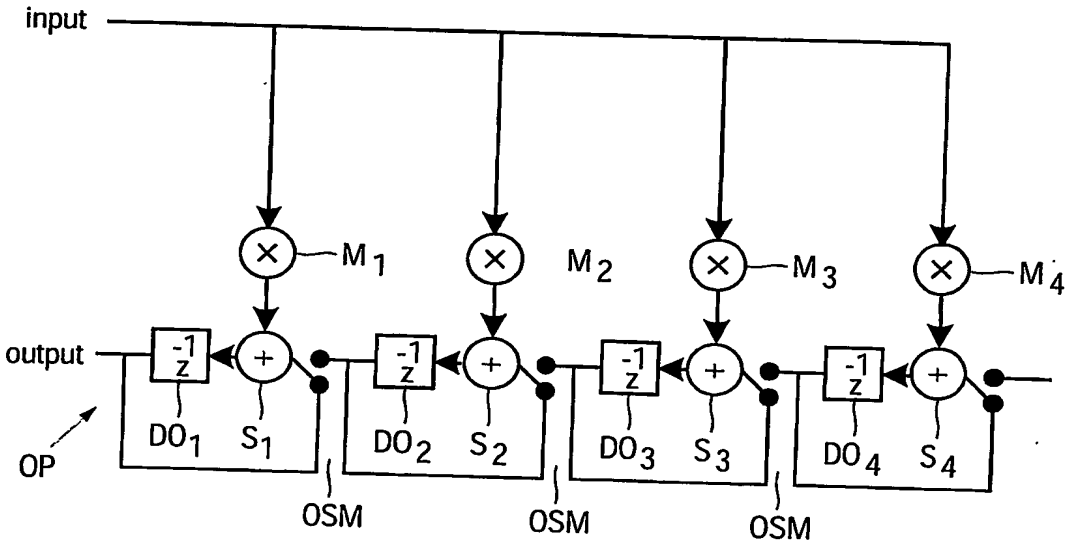

FIG.2

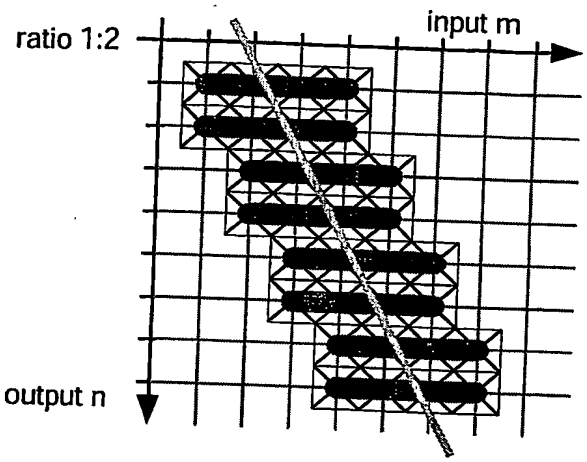

FIG.3A

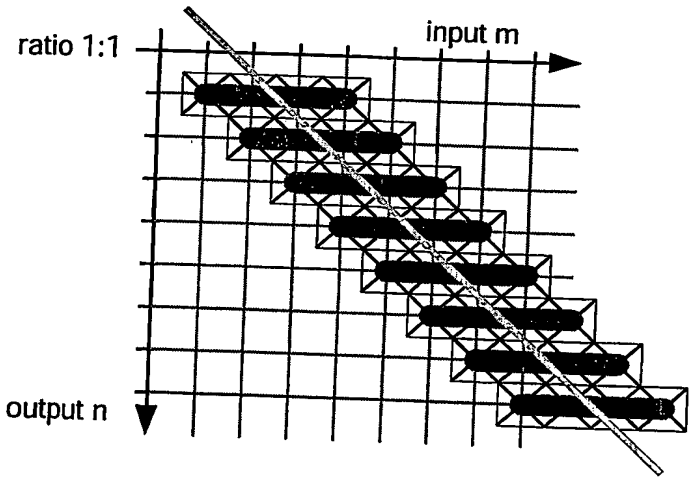

FIG.3B

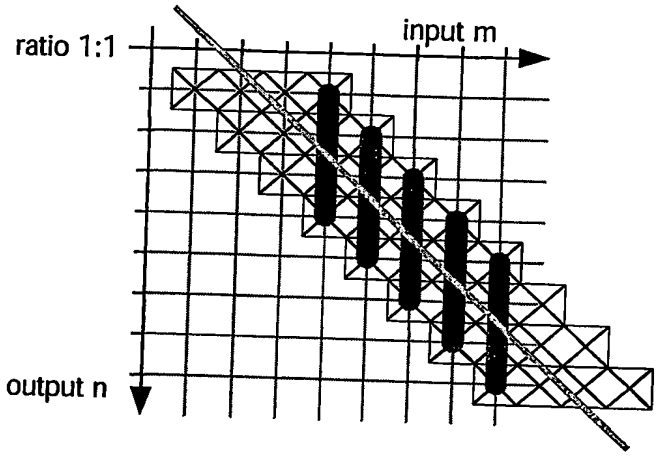

FIG.4A

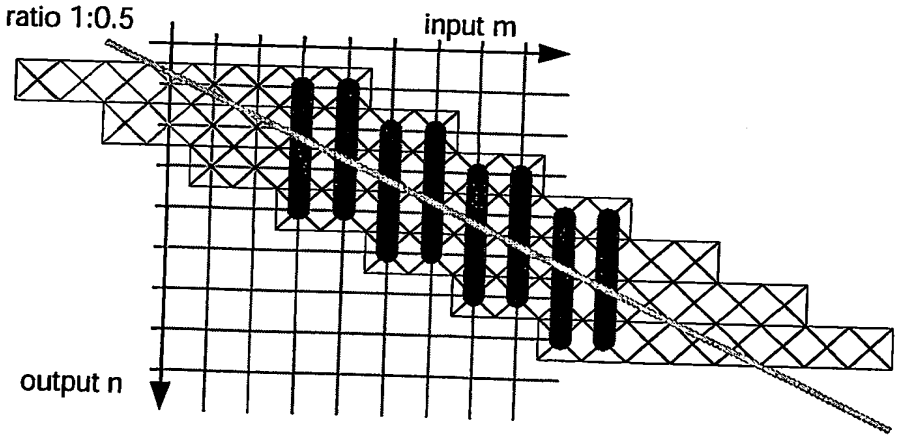

FIG.4B

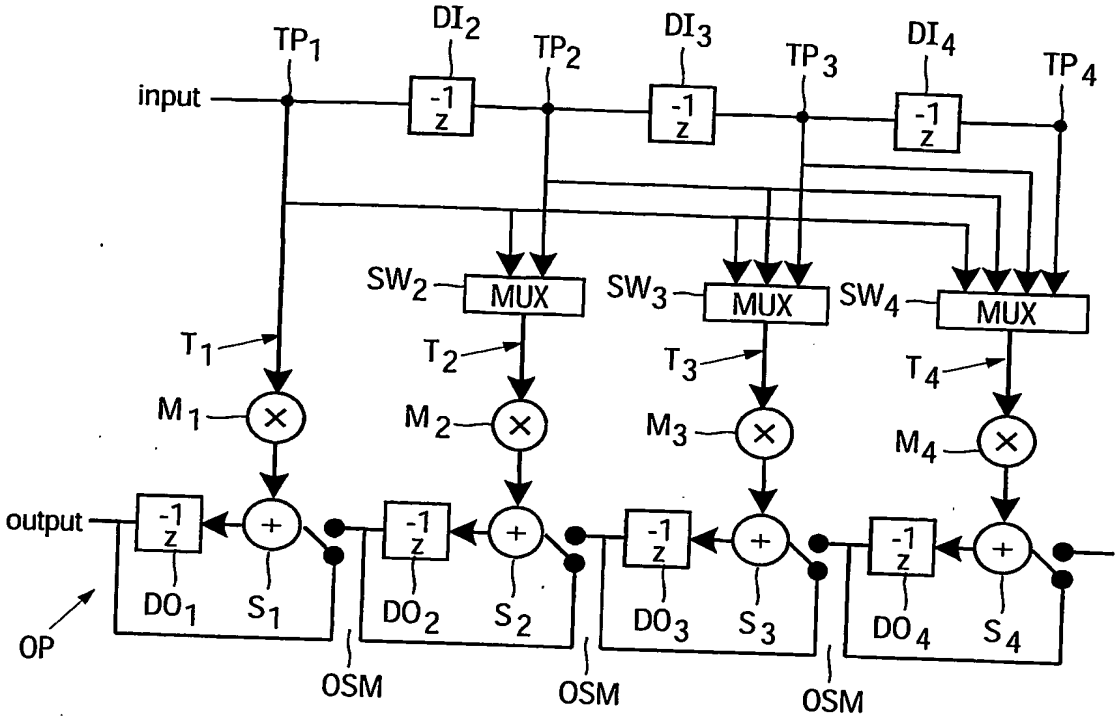
input
TP1
DI2
TP2
DI3
TP3
DI4
TP4
-1 z
SW2
SW3
SW4
MUX
T1
T2
T3
T4
M1
M2
M3
M4
output
DO1
S1
DO2
S2
DO3
S3
DO4
S4
OP
OSM
OSM
OSM

FIG.5

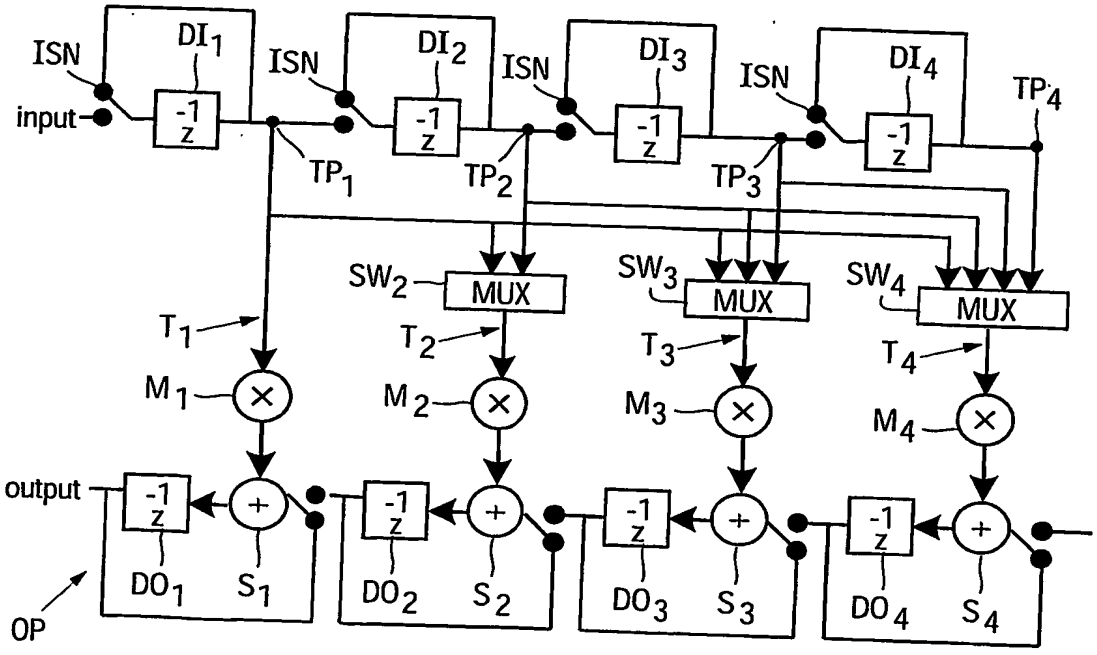
ISN
DI1
input
-1 z
TP1
DI2
TP2
DI3
TP3
DI4
TP4
SW2
SW3
SW4
MUX
T1
T2
T3
T4
M1
M2
M3
M4
output
DO1
S1
DO2
S2
DO3
S3
DO4
S4
OP

FIG.6

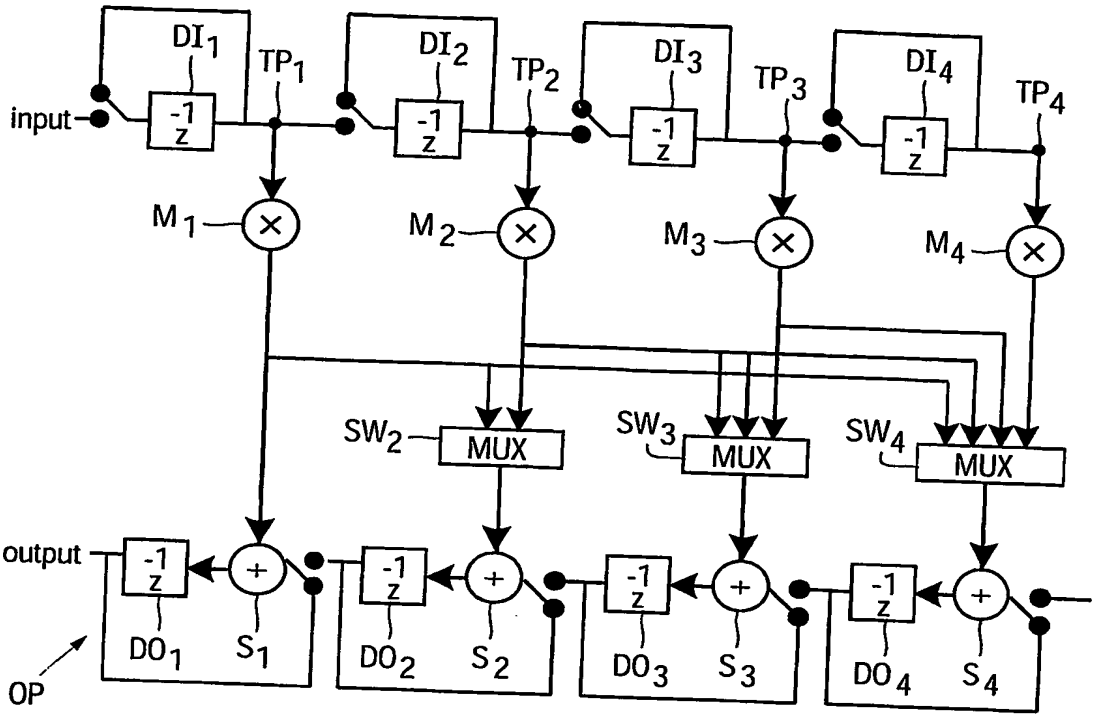
input
DI1
TP1
DI2
TP2
DI3
TP3
DI4
TP4
M1
M2
M3
M4
SW2
MUX
SW3
MUX
SW4
MUX
output
OP
DO1
S1
DO2
S2
DO3
S3
DO4
S4

FIG.7

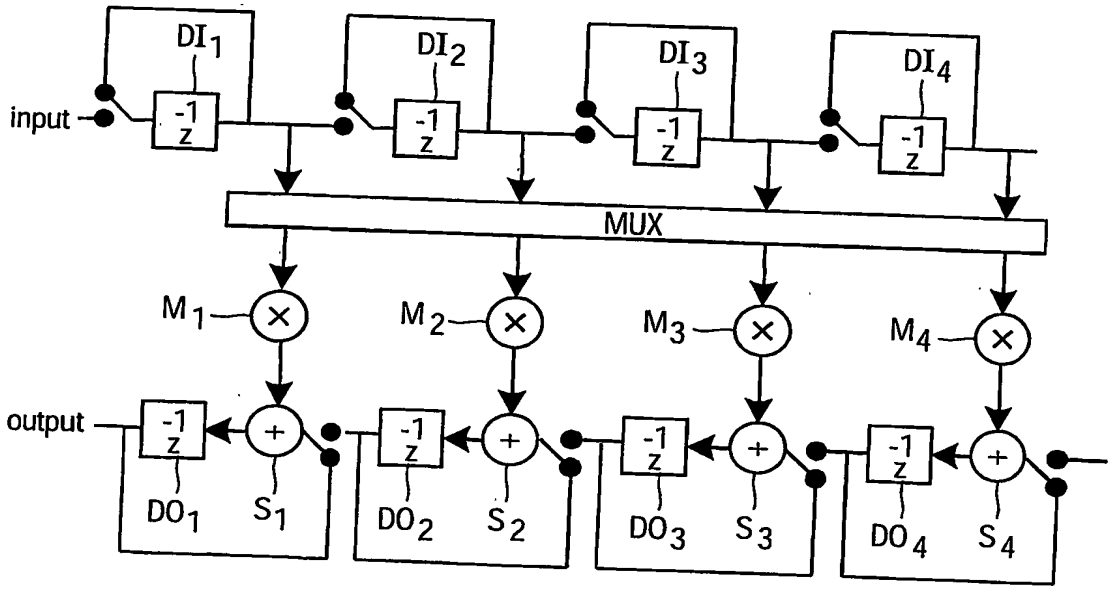
input
DI1
DI2
DI3
DI4
MUX
M1
M2
M3
M4
output
DO1
S1
DO2
S2
DO3
S3
DO4
S4

FIG.8

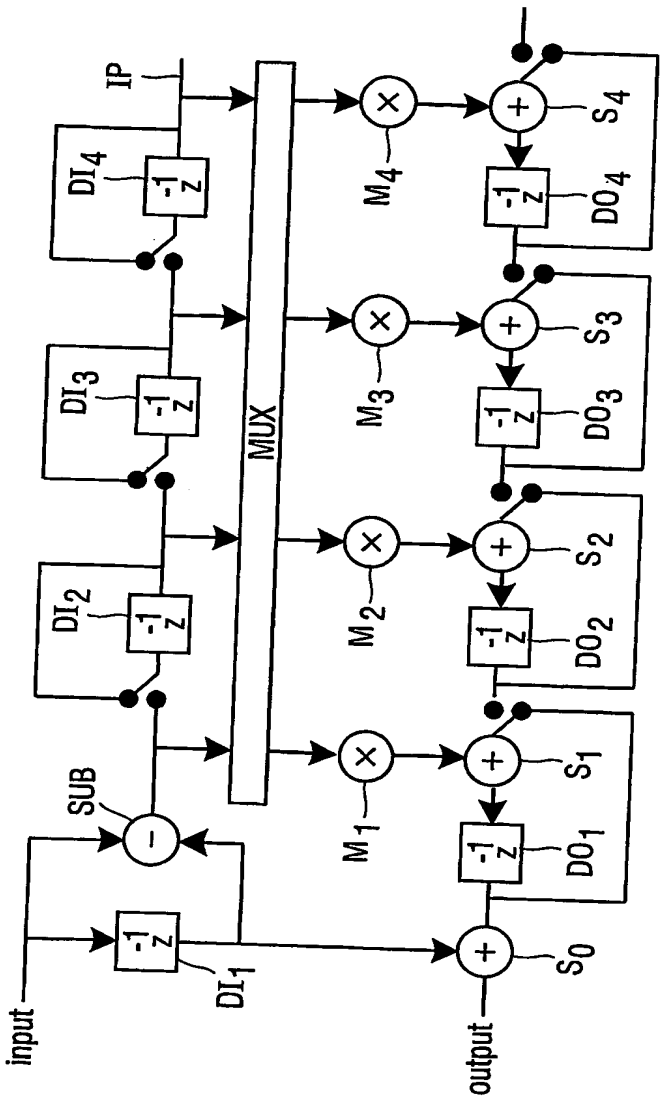
IP
DI4
DI3
DI2
DI1
MUX
SUB
input
output
M4
M3
M2
M1
S4
S3
S2
S1
S0
DO4
DO3
DO2
DO1

FIG.9

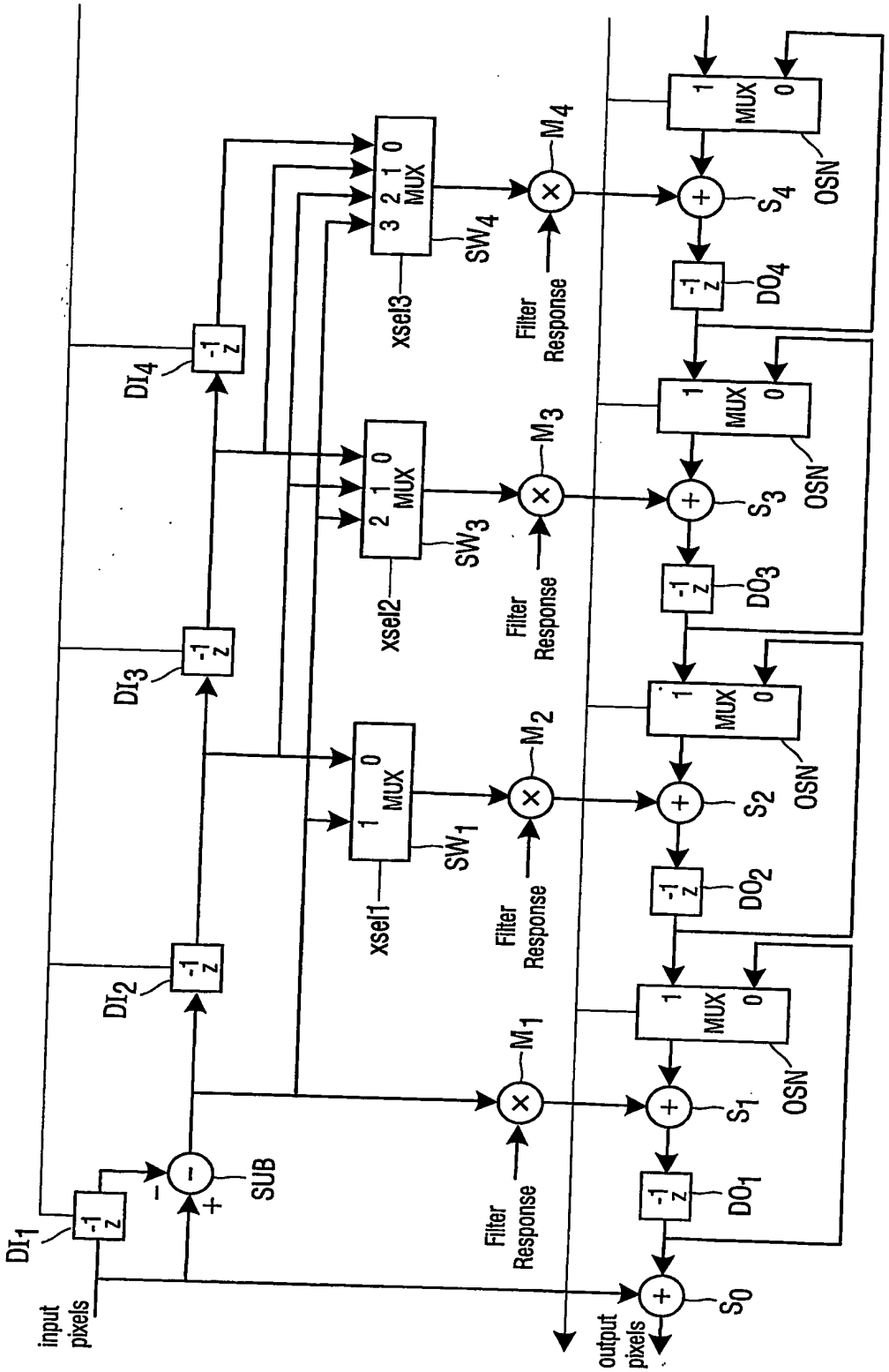
input pixels
DI1
DI2
DI3
DI4
SUB
xsel1
xsel2
xsel3
SW1
SW2
SW3
SW4
M1
M2
M3
M4
Filter Response
MUX
OSN
S0
S1
S2
S3
S4
DO1
DO2
DO3
DO4
output pixels

FIG.10

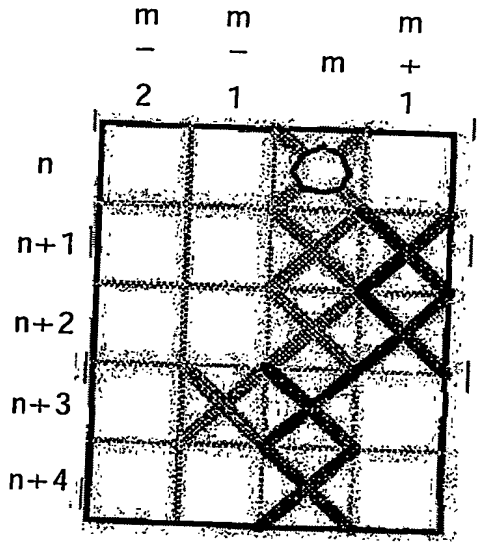

FIG.11

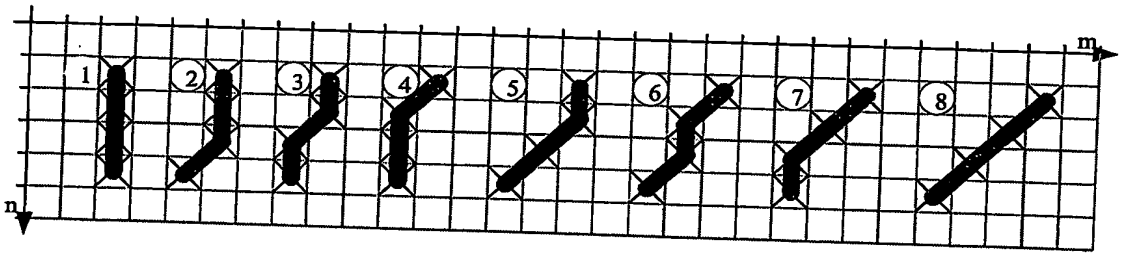

FIG.12

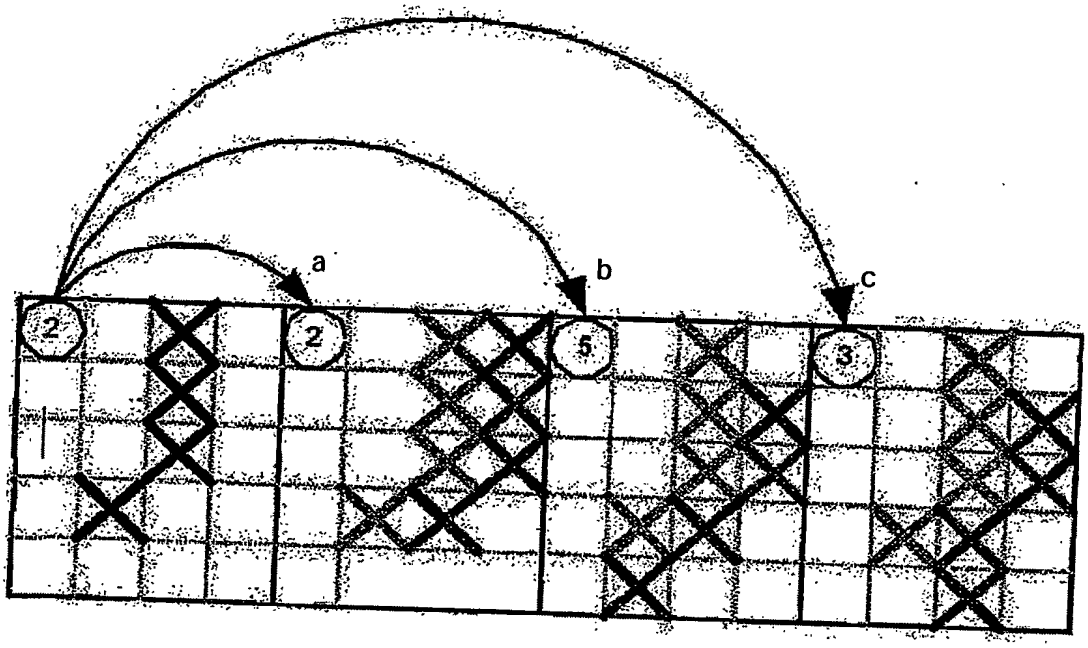

FIG.13

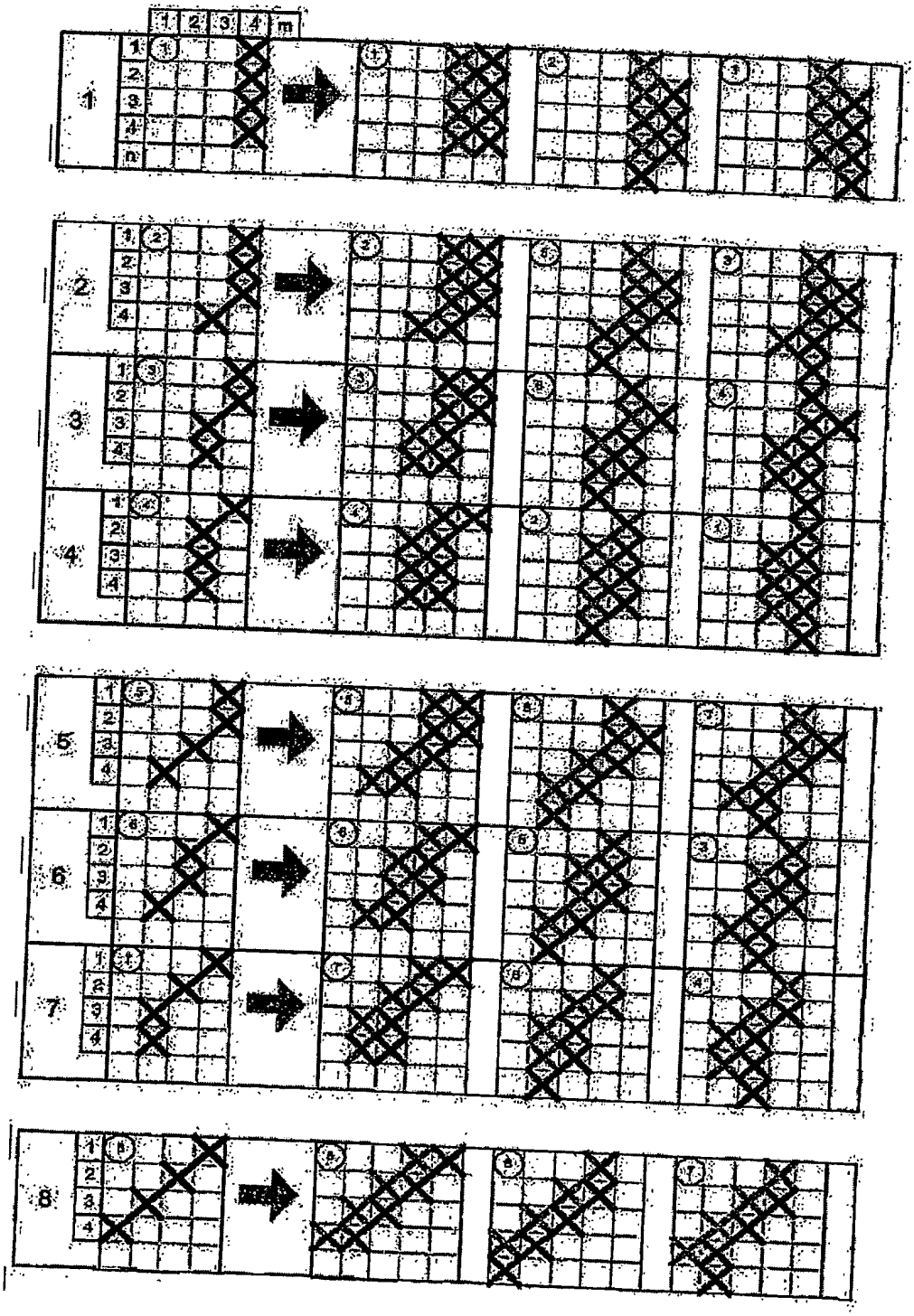

FIG.14

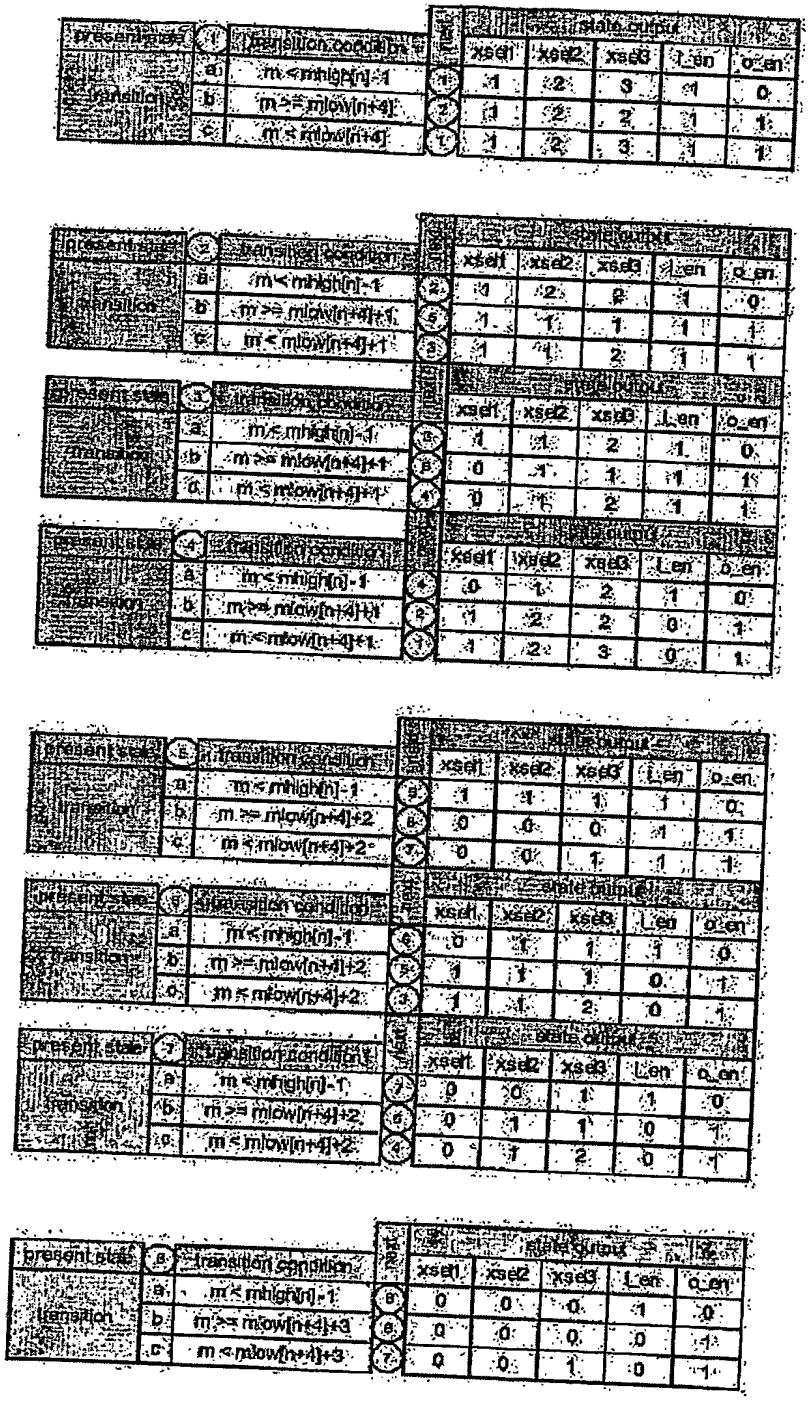
present state
transition
transition condition
state output
xsel1
xsel2
xsel3
l_en
o_en
a
b
c
m < mhigh[n]-1
m >= mlow[n+4]
m < mlow[n+4]
m < mhigh[n]-1
m >= mlow[n+4]+1
m < mlow[n+4]+1
m < mhigh[n]-1
m >= mlow[n+4]+1
m <= mlow[n+4]+1
m < mhigh[n]-1
m >= mlow[n+4]+2
m < mlow[n+4]+2
m < mhigh[n]-1
m >= mlow[n+4]+2
m < mlow[n+4]+2
m < mhigh[n]-1
m >= mlow[n+4]+3
m < mlow[n+4]+3

FIG.15

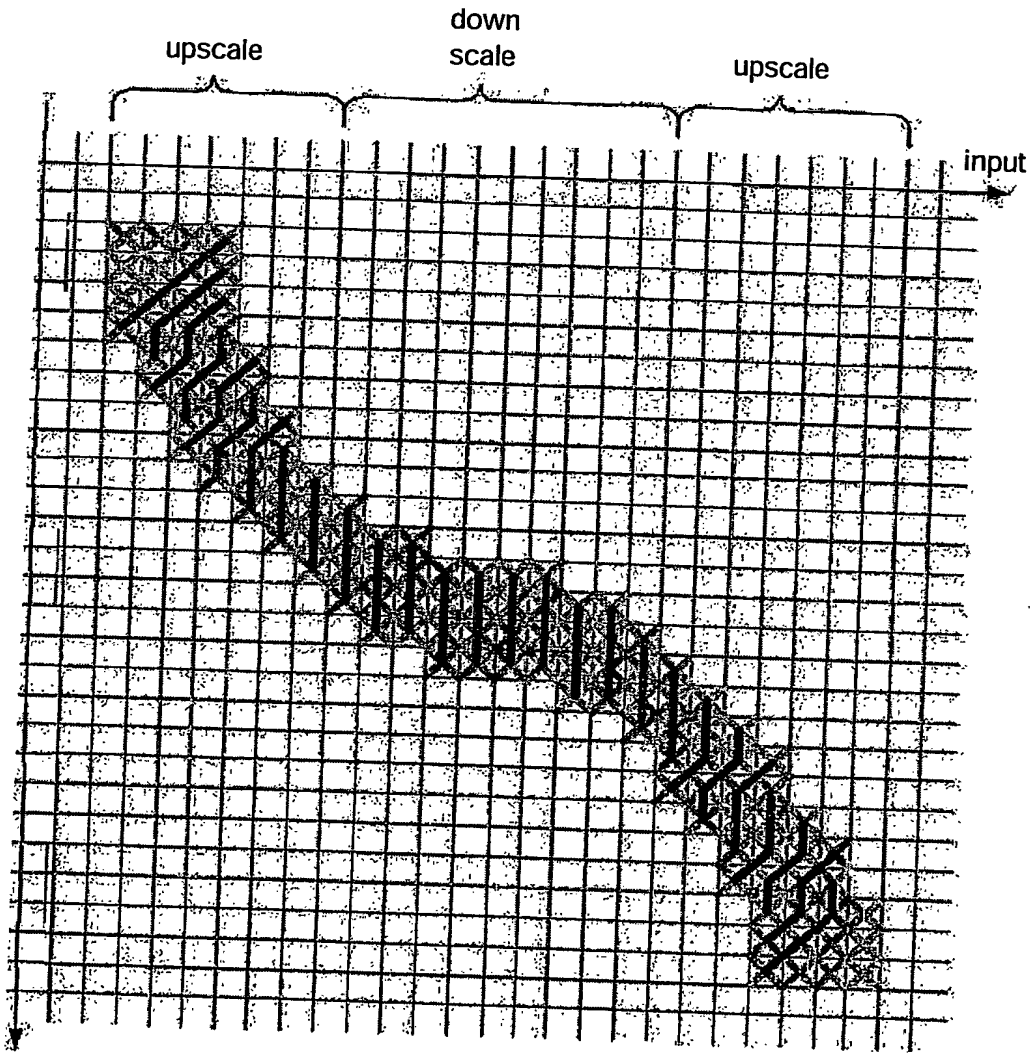

FIG.16

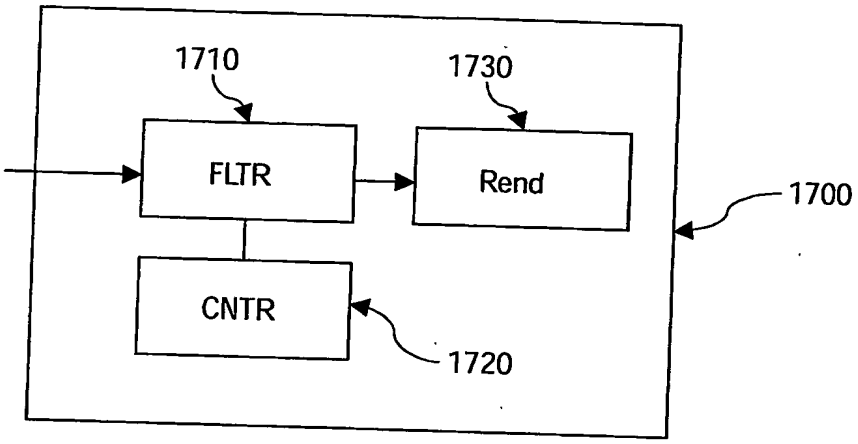

FIG.17